3.13 Wildfire

An NOP for the proposed Project was released or public review on September 1, 2022 and an EIR Scoping Meeting was held on September 20, 2022. Nine comment letters related to wildfire were received. Endangered Habitats League (received September 9, 2022) requested that evacuation plans for the proposed Project should account for road capacity, surrounding evacuations, and environmental conditions. Jessica Heinz (received September 26, 2022), Jerry Block (received September 27, 2022), Ed Philbrick (received September 27, 2022), Carol Moser (received September 24, 2022), Danielle Allison (received September 23, 2022), Jodi Rowin (received September 23, 2022), and Beth Houser (received September 23, 2022) expressed concern regarding evacuation times and plans. Jay Petrek (received October 3, 2022) requested that the EIR contain analysis regarding evacuation measures.

3.13.1 Analysis Methodology

A Fire Protection Plan (FPP) was prepared for the Project by Dudek and is contained as *Appendix M* to this EIR. The FPP evaluates the potential impacts resulting from wildland fire hazards and identifies measures necessary to adequately alleviate those risks to a level consistent with County of San Diego (County) thresholds. Additionally, the FPP develops and memorializes the fire safety requirements of the fire authority having jurisdiction, which is the Rancho Santa Fe Fire Protection District (RSFFPD). Requirements and recommendations detailed in the FPP are based on site-specific characteristics, applicable code requirements, and input from the Project's applicant and the RSFFPD.

As part of the assessment, the FPP includes the evaluation of, among other site factors, property location, topography (including saddles, chutes, chimneys), geology, combustible vegetation (fuel types), climatic conditions, and fire history. The FPP addresses water supply, fire department and emergency access (including secondary access, where applicable), structural ignitability and ignition-resistive building features, fire protection systems and equipment, potential impacts to existing emergency services, defensible space, and vegetation management. It also identifies and prioritizes areas for potentially hazardous fuel reduction treatments and recommends the types and methods of treatment to protect the community and essential infrastructure. The FPP also recommends measures that property owners and the Project's homeowners association (HOA) could take to reduce the probability of structure ignition throughout the area.

The Project site is located within the boundaries of the RSFFPD in the unincorporated portion of San Diego County. The FPP addresses RSFFPD's and California Department of Forestry and Fire Protection's (CAL FIRE's) response capabilities and response travel time within the Project area, along with projected funding for facility improvements and fire service maintenance. The following tasks were performed by Dudek to complete the FPP:

- Gathered site specific climate, terrain, and fuel data.
- Processed and analyzed the data using the latest GIS technology.
- Predicted fire behavior using scientifically based fire behavior models, comparisons with actual wildfires in similar terrain and fuels, and experienced judgment.
- Analyzed and guided design of proposed infrastructure.

- Analyzed the existing emergency response capabilities.
- Assessed the risk associated with the Project.
- Collected site photographs and mapped fuel conditions using 200-scale aerial images. Field observations were used to augment existing digital site data in generating the fire behavior models and formulating the recommendations presented in this FPP. (Refer to Appendix A for site photographs of existing site conditions.)
- Evaluated nearby firefighting and emergency medical resources.
- Prepared the Project's FPP detailing how fire risk would be addressed through a system of fuel modification, structural ignition resistance enhancements, and fire protection delivery system upgrades.

3.13.2 Existing Conditions

The Project site is located in a State Responsibility Area (SRA) and is located in Very High Fire Hazard severity zone as shown on Figure 3.13-1, *Fire Responsibility Zones*, and 3.13-2, F*ire Hazard Severity Zones*. The information presented below relates to fire hazard and wildfire behavior influences related to the Project site.

Topography

Topography influences fire risk by affecting fire spread rates. Typically, steep terrain results in faster fire spread up-slope and slower spread downslope. Terrain that forms a funneling effect, such as chimneys, chutes, or saddles on the landscape can result in especially intense fire behavior. Conversely, flat terrain tends to have little effect on fire spread, resulting in fires that are driven by vegetation and wind.

The Project site's topography in its current condition is characterized by a large area of steep hills in the southwest that transition into a relatively flat area in the northern and central portions of the Project site, with terrain sloping up and away from the Project. Surrounding areas include similar terrain. The Project site is bordered by the Rancho La Costa Reserve to the west and south. Additionally, a small drainage crosses the southeast corner of the site.

Elevations of the Project site range from approximately 500 feet above mean sea level (amsl) at the eastern boundary of the property to approximately 930 feet amsl in the southwest corner of the Project Site. Slope is important relative to wildfire because steeper slopes typically facilitate more rapid fire spread up slope, which can range from 9% to 23% within the Project site. On the Project site, the steeper slopes are primarily within the southern portion of the site, ascending up from the northern portions of the property. The Project site's topography is generally in alignment with the extreme Santa Ana wind events, which can influence fire spread by creating wind-driven fires, especially when moving upslope.

Climate

North San Diego County, including the Project site, is influenced by the Pacific Ocean and frequently under the influence of a seasonal, migratory subtropical high-pressure cell known as the "Pacific High". Wet winters and dry summers with mild seasonal changes characterize the Southern California climate. Local climate, which has a large influence on fire risk, is typical of a Mediterranean area. The climate pattern is occasionally interrupted by extreme periods of hot weather, winter storms, or dry, northeasterly Santa Ana winds. The average high temperature for the Project site during fire season is approximately 81°F, though the temperature often exceeds that, reaching into the high 90°F range in the event of a heatwave. Temperature in summer and early fall months (July–October) have reached up to 108°F. Precipitation typically occurs November through April, with annual rainfall averaging 13 inches. The prevailing wind is an onshore flow from the Pacific Ocean, which is approximately 6.25 miles to the west. Hot, dry (Santa Ana) winds, which typically occur in the fall and are usually from the northeast, can gust to 50 mph or higher. The Santa Ana winds are due to the pressure gradient between high pressure in the plateaus of the Great Basin and lower pressure gradient over the Pacific Ocean. Drying vegetation (fuel moisture of less than 5% for 1-hour fuels is possible) during the summer months becomes fuel available to advancing flames should an ignition occur. Extreme conditions, used in fire modeling for this Project, include 81°F temperatures in summer and winds of up to 50 mph during the fall. Relative humidity of 13% or less is possible during fire season.

Fuels (Vegetation)

Developed areas are located to the north, northeast, east, and west of the Project site, and open space areas are to the north, south and east. The Project site is undeveloped and is composed of a variety of vegetation types that were mapped by Alden Environmental (refer to EIR Section 2.1, *Biological Resources*). Extensive vegetation type mapping is useful for fire planning because it enables each vegetation community to be assigned a fuel model, which is used by a software program to predict fire characteristics, as discussed in Section 4.1, Fire Behavior Modeling, of *Appendix M1*. The Project site's vegetative fuels are primarily Diegan coastal sage scrub/chaparral ecotone, non-native grassland, Diegan coastal sage scrub, and chamise chaparral, although smaller pockets of native grassland, riparian scrub, eucalyptus woodland, and southern mixed chaparral vegetation types are present. This vegetation is adapted to periodic wildfire events. Fire history data described in Section 2.2.6, Fire History, of Appendix *M1*, indicates that the vegetation last burned in 1996 over the entirety of the Project site. Small areas of disturbed habitat and urban/developed land cover types are also present within the site. Vegetation is important relative to wildfire, as some vegetation such as coastal sage scrub and grassland habitats are highly flammable, and other vegetation such as chamise chaparral is less flammable due to its higher moisture content, but will burn under certain, more intense fire conditions.

Fuel Loads

The vegetation along the perimeter of proposed development areas and within approximately 300 feet of the development's Fire Management Zones (FMZs) is the area of highest concern for determining what effects wildfire may have on the project's landscape and structures. It is these fuels that, if ignited,

would burn adjacent to the proposed FMZs and alternative protections, designed to reduce flame length, spread, and intensity as it gets closer to the built portions of the Project. Vegetation types in these areas of the Project site have been classified into fuel models used for fire behavior modeling, discussed in Section 4, Anticipated Fire Behavior, of *Appendix M1*.

The importance of vegetative cover on fire suppression efforts is its role in affecting fire behavior. For example, although fires burning in grasslands may exhibit lower flame lengths than those burning in chaparral fuels, fire spread rates in grasslands are often much more rapid than those in other vegetation types.

Fuel loading in non-native grassland is estimated to be 0.4 tons per acre, and in chaparral-sage scrub it is estimated to be between 8.4 and 8.6 tons per acre. The fuel load is the total amount of combustible material in a defined area. Shrub-dominated plant communities tend to include higher fuel loads than grass-dominated plant communities. Tree-dominated communities may include higher fuel loads than shrub-dominated landscapes. However, there are many other facets of fire behavior that govern fire ignition and spread. Therefore, because an area may include higher fuel loads, it does not necessarily mean that it presents a higher fire risk.

Vegetation Dynamics

Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, the native shrub species that comprise the chaparral communities on the Project site are considered to be less likely to ignite but would exhibit higher potential hazard (higher-intensity heat and flame length) than grass-dominated plant communities (fast moving, but lower intensity) if ignition occurred. The corresponding fuel models for each of these vegetation types are designed to capture these differences. Additionally, vegetative cover influences fire suppression efforts through its effect on fire behavior. For example, although fires burning in grasslands may exhibit lower flame lengths and heat outputs than those burning in native shrub habitats, fire spread rates in grasslands are often more rapid.

As described, vegetation plays a significant role in fire behavior and is an important component to the fire behavior models discussed in the Project's FPP. A critical factor to consider is the dynamic ecologic nature of vegetation communities. Fire presence and absence at varying cycles or regimes (fire return interval) disrupts plant succession, setting plant communities to an earlier state where less fuel is present for a period of time as the plant community begins its succession again.

In summary, high-frequency fires tend to convert shrublands to grasslands or maintain grasslands, and fire exclusion tends to convert grasslands to shrublands over time, as shrubs sprout back or establish and are not disturbed by repeated fires. In general, biomass and associated fuel loading will increase over time, assuming that disturbance (fire, grazing) or fuel reduction efforts are not regularly implemented. It is possible to alter successional pathways for varying plant communities through manual alteration. This concept is a key component in the overall establishment and maintenance of

the proposed FMZs for a development project. The FMZs would consist of irrigated and maintained landscapes and thinned native fuel zones that would be subject to regular "disturbance" in the form of maintenance and would not be allowed to accumulate excessive biomass over time, which results in reduced fire ignition, spread rates, and intensity.

Conditions adjacent to the proposed Project's development footprint (outside the FMZs and described in more detail in the impact analysis below), where the wildfire threat would exist post-development, are currently classified as low to moderate fuel loads due to the higher percentage of grasslands intermixed with sparse stands of chamise chaparral and coastal sage scrub fuels. However, the climax vegetation state (undisturbed brush stands that are not disturbed for an extended period of 50 years or more) includes more uniform and dense stands of sage scrub-chaparral fuels, which were employed for a conservative modeling approach to represent worst-case (i.e., max fuels) wildfire scenarios around the perimeter of the Project site.

Fire History

Fire history is an important component of preparing and designing FPPs. Fire history data provides valuable information, including fire spread, fire frequency, most vulnerable areas, and significant ignition sources. In turn, this understanding of why fires occur in an area and how they typically spread can then be used for pre-planning and designing defensible communities. As represented in Figure 3.14-3, *Fire History Map*, there have been 28 fires recorded by CAL FIRE since 1919 on the Fire and Resource Assessment Program database within five miles of the Project site. The total of 28 fires in this area over the last 101 years within five miles of the Project is not considered a high number for Southern California. On average, CAL FIRE annually responds to 5,000 wildfires of more than 10 acres (CAL FIRE 2015). Of the 28 fires that have burned within five miles of the Project site, there have been two fires that burned across the Project property. The most notable fire (Witch Fire) occurred in October 2007 and burned approximately 162,070 acres in the northern portion of the County; however, it did not burn any portion of the Project site. RSFFPD may have data regarding other smaller, undocumented fires that have occurred in the area and on the Project site that have not been included herein because fires under 10 acres are not recorded by CAL FIRE. Figure 3.14-3 presents fire history within five miles of the Project site and provides a graphical representation of the quantity of times the landscape has burned in the area. Recorded fires since 1900 that have burned onto the Project site are listed in Table 3 of *Appendix M1*.

Based on fire history data for the vicinity, fire return intervals range between 0 and 27 years, indicating the wildfire potential in the region and the potential for the vicinity of the Project site to be subject to occasional wildfire encroachment, most likely from the large expanses of open space to the south and east.

3.13.3 Existing Regulatory Setting

State

Public Resources Code (PRC) Sections 4290-4299

Public Resources Code Sections 4290-4299 establish minimum Statewide fire safety provisions pertaining to: roads for fire equipment access; signs identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fire fuel breaks and greenbelts. With certain exceptions, all new construction after July 1, 1991, in potential wildland fire areas, is required to meet these Statewide standards. The State requirements, however, do not supersede more restrictive local regulations. (CA Legislative Info, n.d.)

As defined by the California Department of Forestry and Fire Protection (CAL FIRE), wildland areas defined as State Responsibility Areas (SRAs) may contain substantial wildfire risks and hazards. They consist of lands exclusive of cities, and federal lands regardless of ownership. The primary financial responsibility for preventing and suppressing fires within wildlands belongs to the State of California. However, it is not the State of California's responsibility to provide fire protection services to buildings or structures located within the wildlands unless CAL FIRE has entered into a cooperative agreement with a local agency for those purposes pursuant to PRC Section 4142. As such, wildland areas require disclosure of these fire hazards in real estate transactions, and owners of properties in wildland areas are subject to PRC Section 4291 maintenance requirements. The law requires CAL FIRE every five years (1991, 1996, 2001, etc.) to provide maps identifying the boundaries of lands classified as SRAs to the Riverside County Assessor. (CA Legislative Info, n.d.)

Public Resources Code Section 4213 – Fire Prevention Fees

Pursuant to Public resources Code (PRC) Section 4213, in July of 2011, the State of California began assessing an annual "Fire Prevention Fee" for all habitable structures within SRAs to pay for fire prevention services. SRAs are the portions of California where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within incorporated city boundaries, Tribal or federally owned land. As a result of AB 398, California Global Warming Solutions Act of 2006, the fire prevention fee was suspended as of July 1, 2017. (CA Legislative Info, n.d.)

California Government Code (CGC) Sections 51178 and 51182

The Director of CALFIRE, in cooperation with local fire authorities, is required to identify areas that are Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRAs), based on consistent Statewide criteria, and the expected severity of fire hazard. Per California Government Code (CGC) § 51178, a local agency may, at its discretion, exclude from the requirements of § 51182 an area within its jurisdiction that has been identified as a VHFHSZ, if it provides substantial evidence in the record that the requirements of § 51182 are not necessary for effective fire protection within the area. Alternatively, local agencies may include areas not identified as VHFHSZ by CalFire, following

a finding supported by substantial evidence in the record that the requirements of § 51182 are necessary for effective fire protection within the new area. According to § 51182, such changes made by a local agency shall be final and shall not be rebuttable by CalFire. (CA Legislative Info, n.d.)

California Code of Regulations (CCR) Title 14 – Natural Resources

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They were prepared and adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development within SRAs. Among other things, Title 14 requires the design, and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures (fire fuel modification zones, etc.). (Westlaw, n.d.)

CCR Title 24, Parts 2 and 9 – Fire Codes

Part 2 of Title 24 of the CCR refers to the California Building Code, which contains complete regulations and general construction building standards of state adopting agencies, including administrative, fire and life safety, and field inspection provisions. Part 2 was updated in 2008 to reflect changes in the base document from the Uniform Building Code to the International Building Code. Part 9 refers to the California Fire Code, which contains other fire safety-related building standards. In particular, Chapter 7A, "Materials and Construction Methods for Exterior Wildfire Exposure," in the 2010 California Building Code addresses fire safety standards for new construction. In addition, Section 701A.3.2, "New Buildings Located in Any Fire Hazard Severity Zone," states: (BSC, n.d.)

> "*New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.*"

California Public Utilities Commission General Order 95: Rules for Overhead Electric Line Construction

The California Public Utilities Commission's (CPUC's) General Order (G.O.) 95 specifies requirements for overhead transmission line design, construction, and maintenance, including a number of requirements to avoid or minimize potential safety hazards. These requirements include standards related to vegetation management and maintenance of minimum vegetation clearances from high-voltage lines to minimize potential fire hazard. (CPUC, n.d.)

Local

County Fire Code

The County of San Diego 2023 Consolidated Fire Code (CoFC) contains the ordinances of each of the fire protection districts that service the County, including the Rancho Santa Fe Fire Protection District (RSFFPD), which services the Project site. The CoFC is based upon the California Fire Code, which each fire protection districts adopts subject to the modifications or changes that are reflected in the CoFC. (County, 2023)

Hazard Mitigation Plan

The Board of Supervisors of the County of San Diego adopted the revised 2023 Multi-Jurisdictional Hazard Mitigation Base Plan on February 7, 2023. The Multi-Jurisdictional Hazard Mitigation Plan is a countywide plan that identifies risks and ways to minimize damage by natural and human-caused disasters, including wildfire. The plan is a comprehensive resource document that serves many purposes such as enhancing public awareness, creating a decision tool for management, promoting compliance with State and Federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination. The Plan identifies Wildfire in a high threat category indicating that wildfire hazard has a "Highly Likely" probability of occurrence and/or a severe impact on the community. The Plan sets forth mitigation goals and objectives, mitigation actions, and priorities, and an action plan/implementation strategy countywide. (County, 2023b)

Fire and Rescue Mutual Aid Operations, Operational Area Emergency Operations Plan

The Fire and Rescue Mutual Aid Operation Annex is an integral part of the San Diego County Operational Area (OA) Emergency Operations Plan (EOP) and the current State of California Fire and Rescue Emergency Mutual Aid Plan. In identifies the implementation procedures for mutual aid and other support in the event of fires. (County, 2022a)

3.13.4 Analysis of Project Effects and Determinations as to Significance

Guideline for the Determination of Significance

Because the Project site is located in a State Responsibility Area and has lands classified as a very high fire hazard severity zones, a significant impact to wildfire would occur if the Project would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.

Guideline Source

The identified guideline is based on Appendix G of the CEQA Guidelines.

Analysis

The Project site's wildland/urban interface (WUI) location is within an area statutorily designated as a Very High Fire Hazard Severity Zone by CAL FIRE and is located within a State Responsibility Area (SRA). The Project would not result in inadequate emergency access. The proposed internal looped roadways meet County standards and provide emergency access over the roadways that include a minimum width of 24 feet (two 12-foot-wide, unobstructed travel lanes) and additional width for parking. Further, 'No Parking' signs shall be placed throughout the community along the roads that are 24 feet wide and cannot accommodate on-street parking. Additionally, the roads would provide residents the option to evacuate from at least two egress access points in two different directions from the Project site. Depending on the nature of the emergency, residents can exit at the east end of the community using Street "E" or the west end of the community using Street "B" and travel east (toward Carlsbad and I-5) or west (toward San Elijo Hills and SR-76) on San Elijo Road. In emergencies where evacuation was considered unsafe and it would be safer to remain within the developed portions of the community, temporary refuge within the Loma San Marcos ~~EdenPark~~ recreational center, the neighboring shopping center, or San Elijo Elementary School, or other area identified by emergency responders would be possible. Additionally, the Project would be developed as a Firewise Community. The Firewise USA program provides a framework for residents to increase the ignition resistance of their homes and community and to reduce wildfire risks.

A Conceptual Wildfire Evacuation Plan (CWEP) was prepared for the Project Dudek and is included as *Appendix M2* to this EIR. The CWEP promotes the "Ready, Set, Go!" model, adopted by Rancho Santa Fe Fire Protection District, San Diego County Fire Authority, CAL FIRE, and many fire agencies statewide. available. A copy of the CWEP would be provided to the Project's HOA, which would distribute the CWEP to Project residents so that residents are aware of the evacuation routes, the fluidity of wildfire events, and the options that may be presented to them by responding law enforcement and/or fire personnel, Reverse 911, or other officials. Evacuation routes for the Project are shown on Figure 3.13-4, *Wildfire Evacuation Routes*. The HOA may also provide online access to fire awareness educational material such as on the community's website if there is such a website.

The CWEP (*Appendix M2*), Section 4, presents an analysis that calculates evacuation times along San Elijo Road based on congested roadways that can occur during a wildfire evacuation. Along San Elijo Road from S. Rancho Santa Fe Road to SR-78, vehicles from the Project site would add a maximum of 2.0 minutes to the evacuation time. Similarly, along San Elijo Road between S. Rancho Santa Fe Road and I-5, the vehicles from the Project site also would add a maximum of 2.0 minutes to the evacuation time. Dudek determined that the 2.0 minutes would be virtually no change to the overall evacuation travel time scenario, which is considered a less than significant impact. With required implementation of the Project's CWEP, the Project would have a less-than-significant impact to adopted emergency response plans and emergency evacuation plans.

Guideline for the Determination of Significance

Because the Project site is located in a State Responsibility Area and has lands classified as a very high fire hazard severity zones, a significant impact to wildfire would occur if the Project would:

- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Guideline Source

The identified guideline is based on Appendix G of the CEQA Guidelines.

Analysis

In order to evaluate the Project's potential to exacerbate wildfire risks, a Project-specific Fire Protection Plan (FPP) was prepared for the Project, the results and recommendations of which are discussed below. Refer to Section 4 of the Project's FPP (*Appendix M1*) for a discussion of the methodology and computer software used to assess fire risks in the local area.

The site fire risk analysis resulted in the determination that wildfire has occurred and will likely occur near the Project area, but the Project would provide ignition-resistant landscape and structures, and defensible space with implementation of specified safety measures. Based on modeling and analysis of the Project area to assess its unique fire risk and fire behavior, it was determined that the California and San Diego County standard of 100-foot-wide fuel modification zones (FMZs) would be suitable to protect the Project from an anticipated wildfire that may burn in areas adjacent to developed areas. The Project's FMZs are labeled on the Project plans as "Defensible Space" based on direction from RSFFPD. For purposes of analysis herein and to maintain consistent terminology with San Diego County standards, the term FMZ will continue to refer to the on-site fuel modification areas. The Project includes an approximately 105-foot-wide FMZ, which includes the rear yard of Lots 19-45. This 105-foot-wide FMZ, when properly maintained, has proven effective at minimizing structure ignition from direct flame impingement or radiant heat, especially for structures constructed using the latest ignition-resistant codes.

FMZs are designed to gradually reduce fire intensity and flame length and, therefore, slow the fire from advancing by strategically placing thinning zones, restricted vegetation zones, and irrigated zones adjacent to each other on the perimeter of the community's WUI exposed structures. As shown on Figure 3.14-5, *Fuel Modification Plan,* FMZs would be located in the following areas:

- All residential occupancies
- Open space areas within the development footprint
- Emergency access roads or streets

To accommodate these FMZs, the Project would be required to provide FMZ easements along the Project's western boundary. The FMZ easement would need to be 30 feet beyond the required road easement for the road along the western boundary. Further, the FMZ easement would be required to include the additional 30-feet necessary to accommodate the remaining portion of the FMZ's Zone 3

to the southwest of the development footprint. The required FMZ areas are shown the Project's Landscape Concept Plan (refer to Figure 1-3 in EIR Chapter 1.0) for assurance of implementation. The Project's property owners and HOA would be responsible for FMZ perpetual maintenance.

It should be noted a San Diego Gas and Electric Company (SDG&E) easement traverses the Project site from the southeastern boundary through the central portion of the site. The easement area is identified as an SDG&E easement and fire buffer open space on TM 5643. Maintenance of the SDG&E easement would be the responsibility of the Project's HOA.

Based on the modeled extreme weather flame lengths for the Project, average wildfire flame lengths are projected to be approximately 45 feet high in open space-adjacent fuels. The fire behavior modeling system used to predict these flame lengths was not intended to determine sufficient FMZ widths, but it does provide the average predicted length of the flames, which is a key element for determining adequate "defensible space" distances for providing firefighters with room to work and minimizing structure ignition. For this Project, the FMZ width outside the lot line is 80 feet, ranging from over two to several times the modeled flame lengths based on the fuel type represented adjacent to the development footprint.

The following FMZ requirements would be implemented for the Project and implemented and maintained prior to any combustible lumber being brought on site. In addition to the FMZs meeting defensible space requirements, the entire developed landscape would be restricted to lower flammability landscaping as part of a fire adapted community approach. The Project is designed to cluster development in the northern portion of the Project site in order to allow for the development of residential uses while providing biological open space in the southern portion of the Project site. Further, the topography of the Project site, the cut slope that will occur along the southern edge of Lot R, and the construction of a 6-foot heat-deflecting fencing along the lot lines of Lots 19-24 and atop the manufactured slope behind Lots 25-45 will provide enhanced protection for the Project. The FMZs and landscape areas are presented graphically in Figure 3.14-5. In addition, the proposed fire adapted plant palette is provided in Appendix E of *Appendix M1*.

Site Specific Fuel Modification Zones

- The effective total width of the FMZs for the Project would be approximately 105 feet, with the rear yards, which average 20 feet, included as part of the FMZ measurement. Therefore, a typical landscape/fuel modification installation for the Project's perimeter lots exceeds the 100-foot standard, consisting of up to a 1050-foot-wide fuel management area from the structure extending outwards toward preserved areas.

The following FMZ specifications are required to be implemented during Project construction and during long-term operation of the residential community. Requirements to adhere to FMZ requirements will be made a responsibility of the Project's HOA and imposed on homeowners through the HOA's CC&Rs.

Zone 1 – Immediate Zone: 0 to 5 feet from structure

This zone shall be constructed of continuous hardscape. Removal of combustible materials surrounding the exterior wall area and maintaining area free of combustible materials. The use of mulch and other combustible materials shall be prohibited.

RSFFPD Zone 1 Requirements:

- Any combustible vegetation, any dead or dying materials, combustible materials (i.e., hay bales, firewood), accumulation of ground needles and leaf litter shall be removed within this zone.
- All accumulations of needle and leaf litter shall be removed from roofs, rain gutters, deck, and porches.
- All new construction or any replacement landscape installations shall NOT have any combustible mulch within this five (5) foot zone from the furthest attached exterior point of the home. Landscape plantings shall only be irrigated lawn or Fire District approved low-growing properly spaced fire resistive shrubs or herbaceous (non-woody) plants. Vegetation shall not come in contact with the structure and specimen spacing shall be such as not to allow the transfer of fire from plant to plant, or from plant to the structure.
- Any combustible materials that could catch fire shall not be stored under decks, exterior stairways and balconies. Combustible patio furniture, umbrellas, trash receptacles, or other combustible items should not be stored or placed directly adjacent to structures.
- Firewood shall not be stored in unenclosed space beneath a building or structure, on a deck or under eaves, a canopy or other projection or overhang. When required by the fire code official, firewood or other combustible material stored in the defensible space surrounding a structure shall be located at least 30 feet from any structure and separated by a minimum of 15 feet from the drip line of any trees, measured horizontally. Firewood and combustible materials not for use on the premises shall be stored so as to not pose a fire hazard. Wood storage shall be located on bare soil or a non-combustible material. Minimum clearance around wood storage pile shall be 10’ bare soil, free of vegetation or other combustible material measured on a horizontal plane. The maximum size of wood storage shall be 2 cords of woods with the pile dimensions no greater than 4 feet in height, 4 feet in width, and 16 feet in length. A permit may be issued by the FAHJ for wood storage amounts in excess of the standards described above.
- All fireplace chimney flues must have a metal screen covering with openings of 3/8 inch to 1/2 inch and have 12-guage thickness or larger.

Zone 2 – Intermediate Zone: 6 to 50+ feet from structure

- This zone shall consist of planting of low growth, drought tolerant and fire resistive plant species. The height of the plants in this zone starts at 6” adjacent to Zone 1 and extending in a linear fashion up to a maximum of 18” at intersection with Zone 3. Vegetation in this zone shall be irrigated and not exceed 10’ in height and shall be moderate in nature. Trees

shall not exceed 30' in height and be limited or as approved by the FAHJ. Firewood inside this zone shall be piled minimum of 30' away from all buildings and structures. Cords of firewood shall also be maintained at least 10' from property lines and not stacked under tree canopies drip lines.

RSFFPD Zone 2 Requirements:

- The area from six (6) to fifty (50) feet of a building or structure shall be cleared of vegetation that is not fire resistant and if re-planted, it shall be with fire-resistant plants. Fire resistive planting materials shall be Fire District approved, properly irrigated, spaced, and maintained. Any weeds or dead grasses shall be cut to a height not to exceed four (4) inches. Single specimens of trees, ornamental shrubbery or ground covers approved by the Fire District are permissible provided they are irrigated and that they do not form a means of rapidly transmitting fire to any structure or from the native growth to any structure. The Fire District must approve of such specimens and will provide the spacing requirements according to the desired planting species.
- All trees and shrubs in this zone shall be properly maintained free of deadwood, litter or dead palm fronds. Trees canopies shall be maintained and if in vicinity of structures shall be trimmed up to ten (10) feet from rooflines.
- Remove any portion of trees, which extend within ten (10) feet of the outlet of a chimney.
- Composted wood chip mulch may be used in a limited non-continuous fashion for landscaping purposes. Depth shall not exceed three (3) (inches). Course non-composted wood or vegetation chips, bark or wood nuggets, rubber mulch, or other shredded mulch shall not be utilized within thirty (30) feet of habitable structures.
- All newly planted fire-resistive tree species shall be planted and maintained at a minimum of ten (10) feet from the tree's drip line to any structure utilizing the trees mature canopy size.
- All newly planted non-fire-resistive tree species shall be planted and maintained at a minimum of thirty (30) feet from the tree's drip line to any structure utilizing the tree's mature canopy size. Newly planted trees of this nature must be approved by the Fire District and strictly comply with the Fire District's landscape standards.

Zone 3 – 51+ to 105 feet from structure

This zone consists of planting of drought tolerant and fire resistive plant species of moderate height. Brush and plants shall be limbed up off the ground, so the lowest branches are 1/3 height of bush/tree/plant or up to 6' off the ground on mature trees. This area would be considered selective clearing of natural vegetation and dense chaparral by removing a minimum 50% of the square footage of this area.

RSFFPD Zone 3 Requirements

- Combustible vegetation in this zone must be removed by methods such as mowing, thinning and trimming, or by other means of modification that leave the plant root structure intact to stabilize the soil. Native vegetation may remain in this area provided that the vegetation is modified so that combustible vegetation does not occupy more than twenty (20) percent of this area and meets horizontal spacing requirements and vertical spacing requirements.
- Accumulated leaf litter or any combustible mulch in this zone may not exceed three (3) inches in depth.

Furthermore, Project setbacks area addressed per Title 14 Section 1276.1 and designed with non-combustible material, or hardscape landscaping extended five feet horizontally around the structure from the furthest extent of each proposed building or to the property line, whichever is greater. Additionally, fire resistive landscaping, as approved by the RSFFPD, for the Project would be maintained in perpetuity by the Homeowner's Association (HOA). In addition, the landscaping plans have been reviewed and approved by RSFFPD, and as condition of approval, a bond would be required during construction that would not be released until RSFFPD has inspected the installed landscaping and provided final approval.

The above-described requirements would be enforced by the County as part of the Project's Conditions of Approval and through the County's future review of implementing developments. As concluded by the Project's FPP, implementation of the recommendations in the FPP for fire abatement, including the provision of FMZs as well as site design features (e.g., asphalt roads, parking areas, irrigated landscaping), would reduce the risk of wildfire hazards occurring on site to acceptable levels. Thus, with compliance with the fire abatement requirements of the Project's FPP, the Project would not exacerbate wildfire risks, and would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Additionally, the Project would not expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Impacts would be less than significant.

Guideline for the Determination of Significance

Because the Project site is located in a State Responsibility Area and has lands classified as a very high fire hazard severity zones, a significant impact to wildfire would occur if the Project would:

- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts in the environment.

Guideline Source

The identified guideline is based on Appendix G of the CEQA Guidelines.

Analysis

The Project would require the installation or maintenance of private roads, fuel breaks, and sewer/water connections. All impacts associated with the installation of infrastructure associated with the Project has been evaluated and analyzed within this EIR. As described above, the effective total width of the FMZs for the Project would be approximately 105 feet, with the rear yards, which average 20 feet, included as part of the FMZ measurement. Therefore, a typical landscape/fuel modification installation for the Project's perimeter lots exceeds the 100-foot standard, consisting of up to a 105-foot-wide fuel management area from the structure extending outwards toward preserved areas.

The proposed fire abatement measures would reduce the risk of fire in the local area as compared to existing conditions. While FMZs would be required throughout the Project, areas subject to fuel modification would occur in areas already planned for impact as part of site development. Thus, impacts to areas requiring FMZs have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, cultural resources), and where impacts are identified mitigation measures are identified to reduce impacts to the extent feasible. There are no components of the proposed FMZs that would result in impacts not already addressed by this EIR. Accordingly, the Project would not exacerbate fire risk, and would not result in temporary or ongoing impacts to the environment beyond what is already evaluated and disclosed by this EIR. Impacts would be less than significant.

Guideline for the Determination of Significance

Because the Project site is located in a State Responsibility Area and has lands classified as a very high fire hazard severity zones, a significant impact to wildfire would occur if the Project would:

- Expose people or structures to significant risk, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes.

Guideline Source

The identified guideline is based on Appendix G of the CEQA Guidelines.

Analysis

As stated in the Hydrology Study prepared for the Project (*Appendix J*), the Project would not alter existing drainage patterns onsite in a manner which would result in flooding on or offsite. The Project does not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems and flows from the Project leave the site at less than predeveloped rates per the mitigated flow rates shown.

Additionally, as stated in the Geology Investigation prepared for the Project (*Appendix F1*), the Project is not located within a 100-year flood hazard area, floodway, or floodplain and would not be impacted

from downstream flooding. Further, the site is not located within a landslide susceptibility area per County GIS.

In addition, the Project's manufactured slopes are assured to be stable through required adherence to the recommendations given in the Geology Investigation prepared for the Project (*Appendix F1*). The Project would also include defensible space, including FMZs as described in detail above. Therefore, the Project would not expose people or structures to a significant risk, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes and impacts would be less than significant.

3.13.5 Cumulative Impact Analysis

The Project site and surrounding areas are within a designated VHFHSZ and are within SRAs and Local Responsibility Areas (LRAs) as shown on Figure 3.14-1. Various cumulative development projects listed in Table 1-3, *List of Cumulative Development Projects,* are also with the VHFHSZ. However, all projects proposed within VHFHSZs would be required to meet minimum fire fuel modification and/or clearing requirements in addition to meeting the standards of the various fire codes in effect at the time of building permit issuance, including but not limited to the CoFC, California Building Standards Code (SBSC), and County Zoning Ordinance. Brush management is required by the County of San Diego, and the CBSC outlines building design requirements related to building materials and construction methods for exterior wildfire exposure. With adherence to applicable requirements, the Project and cumulative development within the VHFHSZ would not increase hazards to on-site structures from wildland fires and hazards to adjacent properties.

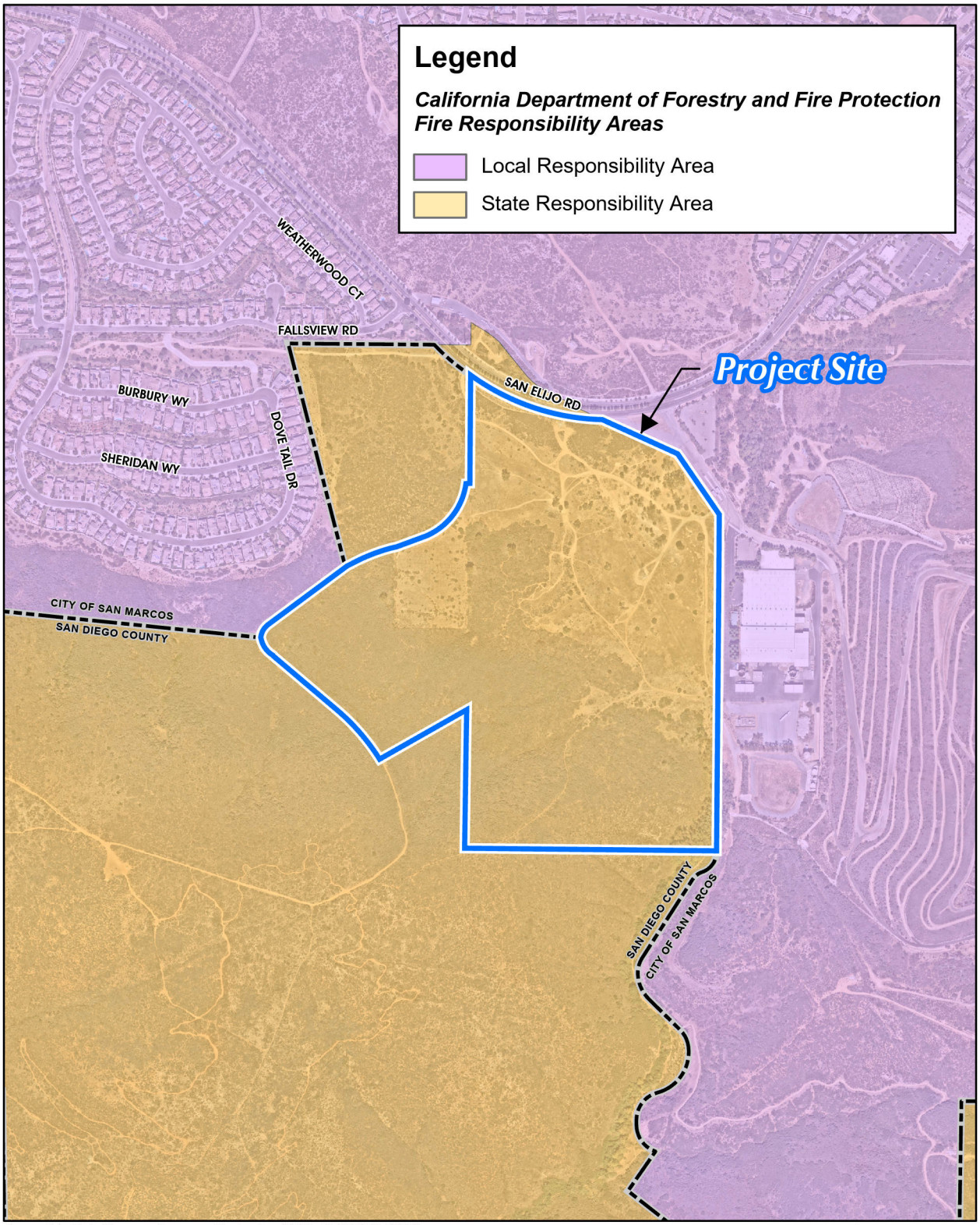
The Project site does not contain any emergency facilities, nor does it serve as an emergency evacuation route. Further, the Project would involve implementation of site access improvements and would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan area as demonstrated in *Appendix M1.* Similarly, cumulative development in proximity to the Project area would be required to adhere to emergency access requirements. The Project would not result in a cumulatively considerable significant impact associated with an adopted emergency response plan or emergency evacuation plan, as it would add only 2.0 minutes to evacuation times on San Elijo Road as analyzed in *Appendix M1.*

3.13.6 Significance of Impacts Prior to Mitigation

Based on the analysis provided above, the Project would have less than significant impacts related to wildfire with incorporation of the Project's required conditions of approval, including adherence to the Project's FPP and CWEP. Accordingly, no additional wildfire attenuation or management measures are required or proposed.

3.13.7 Conclusion

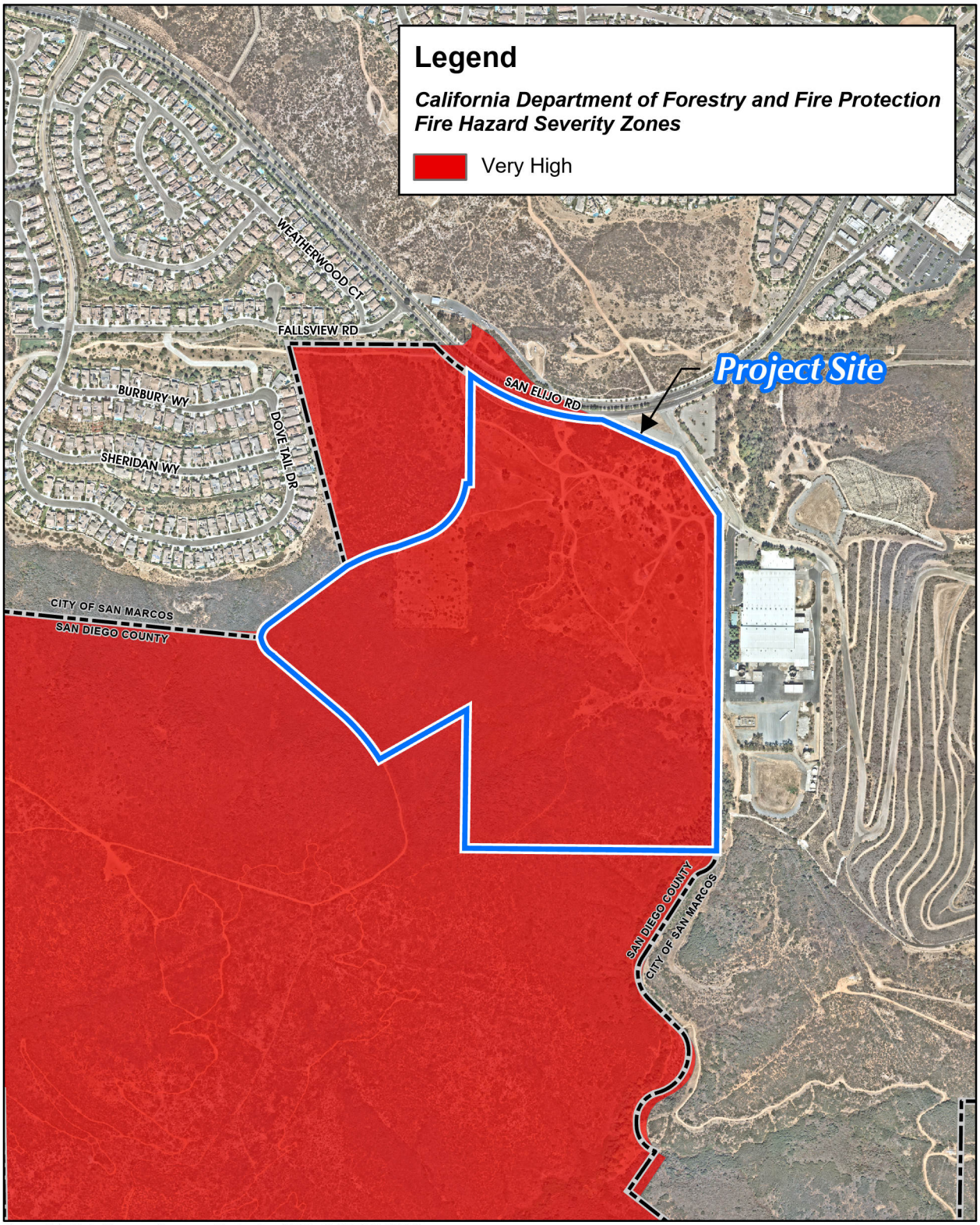
Based on the analysis provided above, the Project would not have a significant direct or cumulatively considerable impact related associated with wildfire.



Source(s): Esri, Nearmap Imagery (September 2022), CALFIRE (2021)

Figure 3.13-1

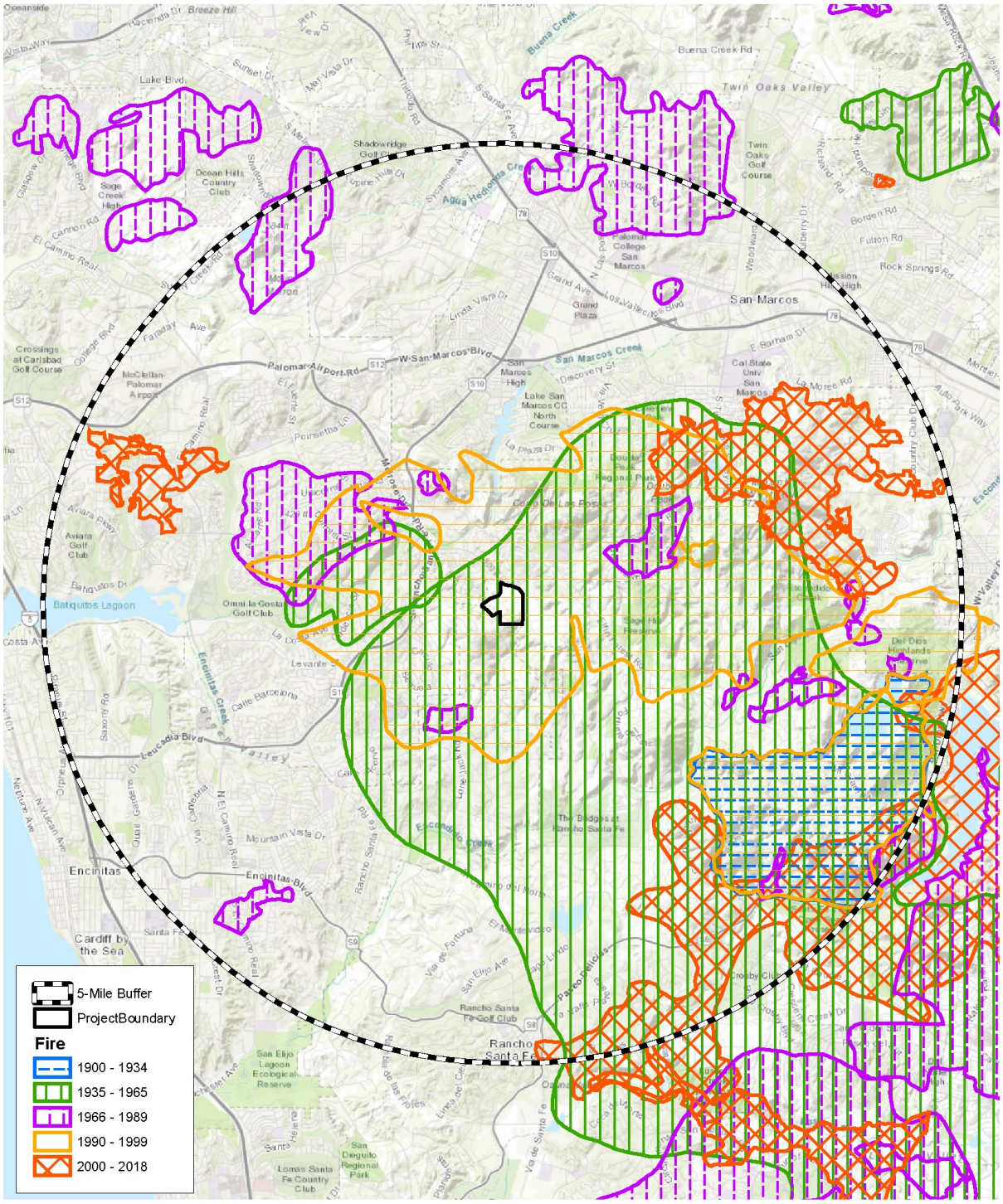
Fire Responsibility Area



Source(s): Esri, Nearmap Imagery (September 2022), CALFIRE (2021)

Figure 3.13-2

Fire Hazard Severity Zones

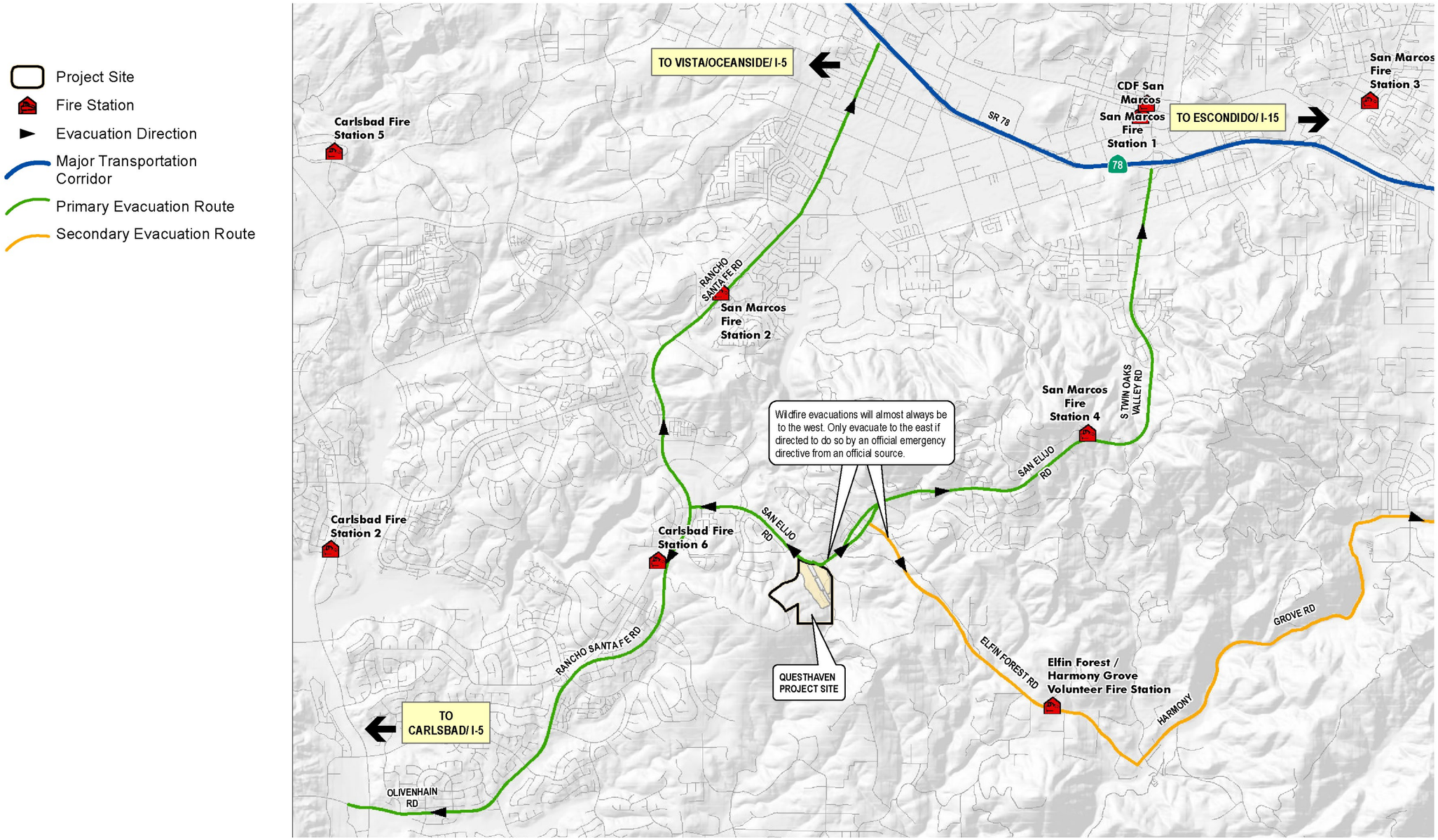


Source(s): Dudek (February 2022)

Figure 3.13-3

Not to Scale

Fire History Map

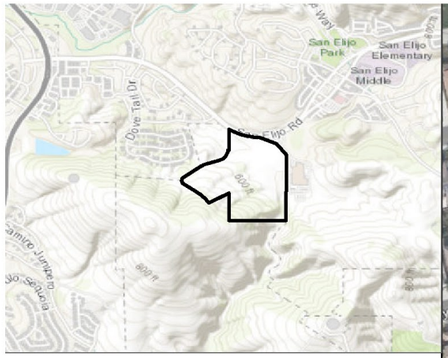


Source(s): Dudek (April 2021)

Figure 3.13-4

Not to Scale

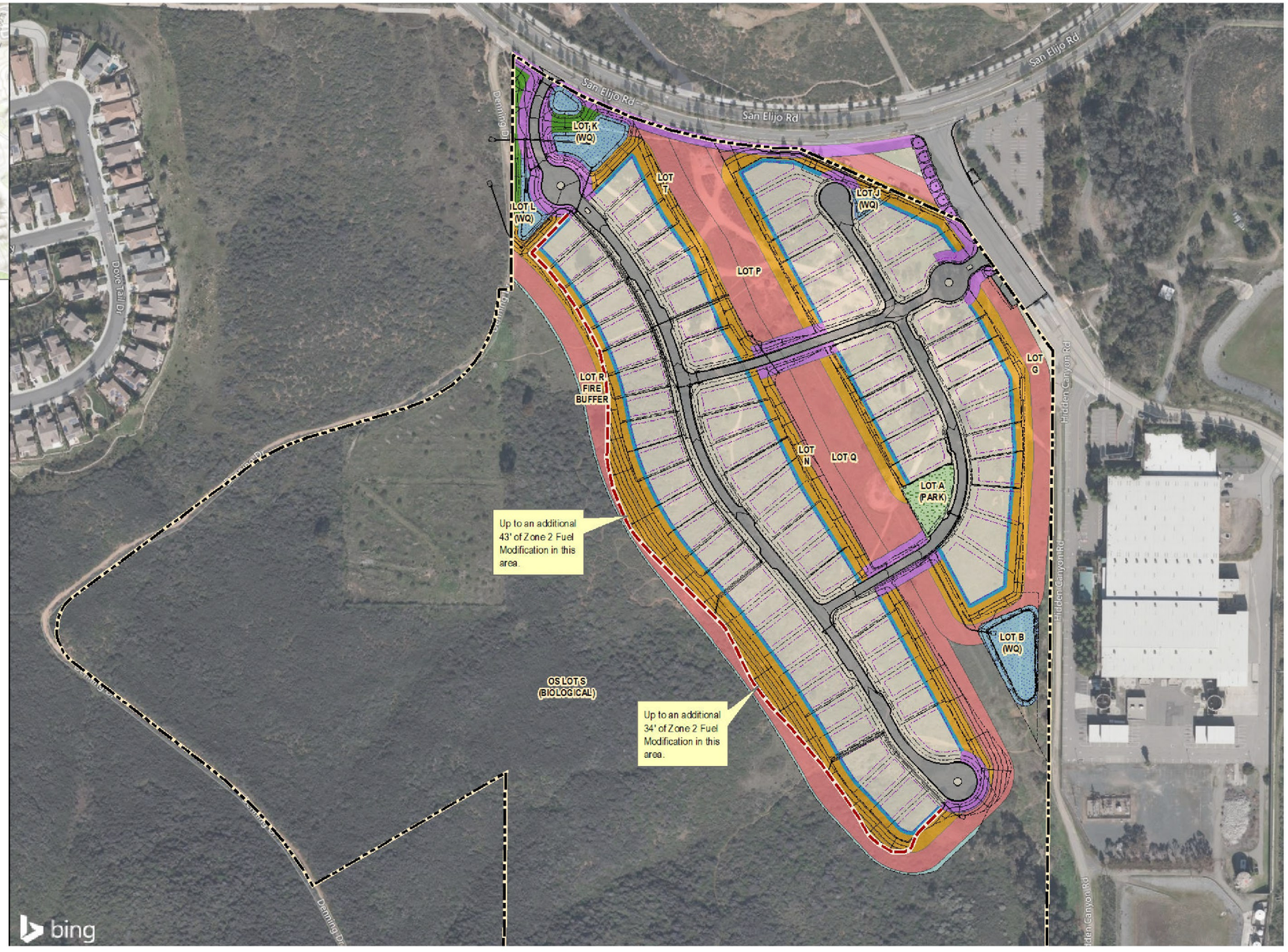
Wildfire Evacuation Routes



Project Site
6-Ft High Heat Deflecting Wall

Fuel Modification Zones
- Zone 1 (irrigated, no combustibles; 0-5')
- Zone 2 (irrigated; 6'-50'; unless noted otherwise)
- Zone 3 (thinned; 51'-100')
- Lot R Remainder Fire Buffer
- 30-Ft Roadside Zone

Land Use
- Development
- Park
- Manufactured Slope
- WQ Basin
- Roadway



Source(s): Dudek (February 2022)

Figure 3.13-5

Not to Scale

Fuel Modification Plan